

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. Filed Herewith
Filing Date Filed Herewith
Inventor Mark E. Tuttle
Assignee Micron Technology, Inc.
Group Art Unit Unknown
Examiner Unknown
Attorney's Docket No. MI40-337
Title: Communication Devices, Remote Intelligent Communication Devices, Electronic
Communication Devices, Methods of Forming Remote Intelligent Communication
Devices and Methods of Forming a Radio Frequency Identification Device

PRELIMINARY AMENDMENT

To: U. S. Patent and Trademark Office
2011 South Clark Place
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Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202

From: James D. Shaurette (Tel. 509-624-4276; Fax 509-838-3424)
Wells, St. John, Roberts, Gregory & Matkin P.S.
601 W. First Avenue, Suite 1300
Spokane, WA 99201-3828

Sir:

Please enter the following amendments prior to examining the above
identified application:

AMENDMENTS

In the Title

Please replace the title with the following:

--COMMUNICATION DEVICES, REMOTE INTELLIGENT COMMUNICATION
DEVICES, ELECTRONIC COMMUNICATION DEVICES, METHODS OF FORMING

REMOTE INTELLIGENT COMMUNICATION DEVICES AND METHODS OF
FORMING A RADIO FREQUENCY IDENTIFICATION DEVICE --.

In the Specification

At page 1 before the "Technical Field" section please insert:

--RELATED PATENT DATA

This patent resulted from a continuation of and claims priority to U.S. Patent Application Serial No. 08/926,595, filed on August 20, 1997, entitled "Electrical Communication Devices, Methods of Forming Electrical Communication Devices and Communication Methods", naming Mark E. Tuttle as inventor, the disclosure of which is incorporated herein by reference.--

In the Claims

Please replace the claims with the following clean version of the entire set of pending claims, in accordance with 37 C.F.R. § 1.121(c)(1)(i).

A marked up version showing amendments to any claims being changed is provided in one or more accompanying pages separate from this amendment in accordance with 37 C.F.R. § 1.121(c)(1)(ii).

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66. (New) A communication device comprising:

a ground plane;

at least one antenna spaced apart from and interacting with the ground plane; and

an integrated circuit coupled with the antenna, the integrated circuit including a modulator configured to communicate using radio frequency backscatter communications.

67. (New) The device according to claim 66 further comprising a dielectric layer intermediate the ground plane and the antenna.

68. (New) The device according to claim 66 wherein the integrated circuit comprises radio frequency identification device communication circuitry.

69. (New) A remote intelligent communication device comprising:
a ground plane;
an antenna spaced apart from and interacting with the ground plane, the antenna being substantially electrically insulated from the ground plane;
an integrated circuit coupled with the antenna, the integrated circuit including a receiver; and
an encapsulant configured to form a housing about the antenna and the integrated circuit, the encapsulant comprising an outermost planar surface of the housing.

70. (New) The device according to claim 69 wherein the encapsulant encapsulates and contacts the antenna.

71. (New) The device according to claim 69 wherein the integrated circuit includes a modulator configured to communicate using backscatter communications.

72. (New) The device according to claim 69 further comprising a power source coupled with the integrated circuit and the ground plane.

73. (New) The device according to claim 69 wherein the encapsulant encapsulates and contacts the integrated circuit.

74. (New) The device according to claim 69 wherein the integrated circuit comprises radio frequency identification device communication circuitry.

75. (New) A communication device comprising:

an integrated circuit comprising transponder circuitry operable to communicate an identification signal using backscatter communications responsive to receiving a polling signal;

an antenna coupled with the transponder circuitry; and

a ground plane spaced from the antenna and configured to shield some electromagnetic signals from the antenna and reflect other electromagnetic signals towards the antenna, the ground plane being further configured to electrically couple with a terminal of a power source.

76. (New) The device according to claim 75 wherein the ground plane has a first side facing away from the antenna and configured to shield the some electromagnetic signals from the antenna, and a second side facing the antenna and configured to reflect the other electromagnetic signals towards the antenna.

77. (New) The device according to claim 75 wherein the integrated circuit is configured to implement radio frequency identification device communications.

78. (New) The device according to claim 75 further comprising the power source coupled with the integrated circuit.

79. (New) A method of forming a remote intelligent communication device comprising:

providing a power source;
forming a ground plane;
forming an antenna spaced from the ground plane;
conductively bonding an integrated circuit with the antenna; and
electrically coupling the ground plane with the power source to electrically ground the ground plane.

80. (New) The method of claim 79 further comprising conductively bonding the integrated circuit with the ground plane.

81. (New) The method of claim 79 further comprising forming a housing to encapsulate and contact the antenna and the integrated circuit.

82. (New) The method of claim 79 wherein the conductively bonding comprises conductively bonding the integrated circuit configured to implement backscatter communications.

83. (New) A method of forming a remote intelligent communication device comprising:

forming a ground plane;

printing an antenna over the ground plane in a substantially electrically insulated relationship with respect to the ground plane;

forming a housing to encapsulate and contact the antenna; and

electrically coupling an integrated circuit with the antenna.

84. (New) The method of claim 83 further comprising providing a dielectric layer intermediate the ground plane and antenna.

85. (New) The method of claim 84 further comprising printing at least one conductive connection through the dielectric layer while printing the antenna.

86. (New) The method of claim 84 wherein the forming the housing comprises forming the housing to contact a portion of the dielectric layer.

87. (New) The method of claim 83 wherein the electrically coupling comprises electrically coupling the integrated circuit configured to implement backscatter communications.

88. (New) A method of forming a radio frequency identification device comprising:

providing a conductive layer;
forming an antenna over the conductive layer;
providing an integrated circuit configured to communicate using radio frequency identification device communications over the conductive layer;
electrically coupling the integrated circuit with the antenna; and
providing an encapsulant to form the device comprising a substantially void-free mass.

89. (New) The method of claim 88 further comprising grounding the conductive layer.

90. (New) The method of claim 88 wherein the encapsulating comprises:

flowing a flowable encapsulant over the antenna and integrated circuit; and
curing the encapsulant.

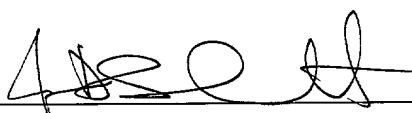
REMARKS

This application is a continuation application of U.S. Patent Application Serial No. 08/926,595, filed on August 20, 1997. Claims 1-65 have been canceled without prejudice. Claims 66-90 are pending in the application, and Applicant requests examination of such pending claims.

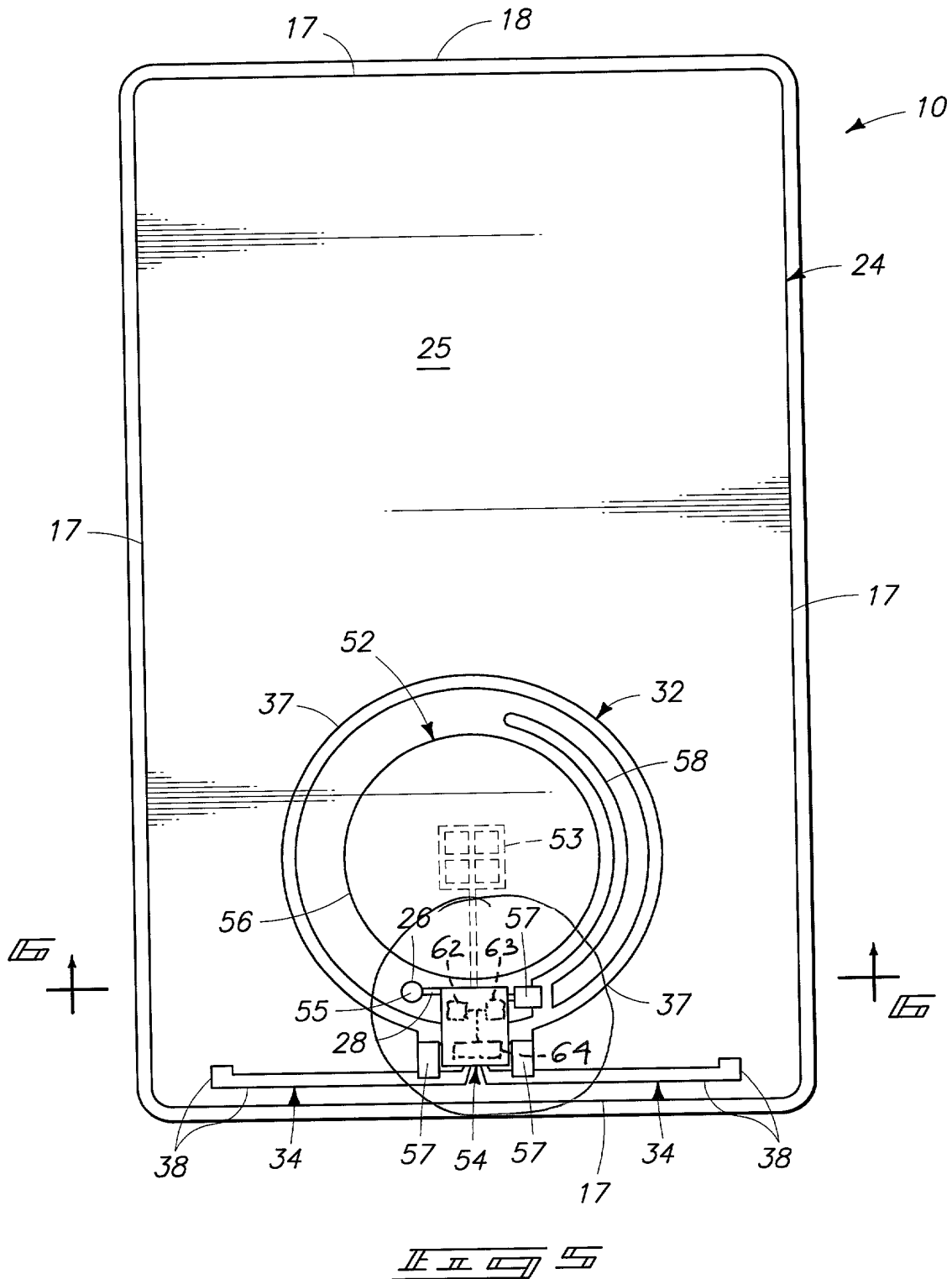
The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at any time during normal business hours (Pacific Time Zone).

Respectfully submitted,

Dated: 11/19/01

By: 
James D. Shaurette
Reg. No. 39,833

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